UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/877,226	06/11/2001	Jeff Mazereeuw	57761.000137	8540

7590 05/21/2004		EXAMINER
Kevin T. Duncan, Esq.		WEST, JEFFREY R
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Suite 1200	ART UNIT	PAPER NUMBER
1900 K Street, NW	2857	
Washington, DC 20006-1109		

DATE MAILED: 05/21/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>12 March 2004</u>.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-25</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1-25</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on <u>16 June 2003</u> is/are: a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
    Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____.

DETAILED ACTION

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on March 12, 2003 has been entered.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 1-25 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 1, 11, 12, and 22 are considered to be vague and indefinite for the following reasons.

First, claims 1, 11, 12, and 22 contain a limitation for "the at least one provided with a device program" without indicating to one having ordinary skill in the art to what "the at least one" refers. Since these claims also contain a limitation for "at least one of the network interface devices", for the prosecution of the application, the Examiner considered "the at least one" to refer to the "at least one of the network interface devices".

Claims 1, 11, 12, and 22 are also considered to be vague and indefinite because they recite, "the device program being substantially not uniquely adapted". It has been held that the criteria for interpreting claim language is the meaning of words as they would be understood by persons in the field of the invention. Therefore, usage of the term "substantially" must be analyzed to determine whether this usage is definite or not to one in the field of invention. In this case, one having ordinary skill in the art would understand something to be "unique" or "not unique", but would not understand "substantially not unique".

Claims 2-10, 13-21, and 23-25 are rejected under 35 U.S.C. 112, second paragraph, because they incorporate the lack of clarity present in their respective parent claims.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claims 1, 3-5, 10, 12, 14-16, and 21, as may best be understood, are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,236,332 to Conkright et al. in view of U.S. Patent Application Publication No. 2004/0054717 to Aubry et al.

Conkright discloses a control and monitoring system comprising monitoring equipment (i.e. one or more remote units), operatively connected to a device such as a utility system (column 1, lines 31-32), that measures the operating current of the device (column 8, lines 18-20). Conkright discloses operatively connecting the monitoring equipment to a host computer through a first communication network (i.e. wireless service gateway with subscriber software) (column 3, lines 53-61) as well as operatively connecting a remote customer interface terminal to the host computer through the same wireless service gateway and subscriber software, or the Internet (column 3, lines 22-34) wherein the remote customer interface receives notification of operating conditions of the monitored utility device (column 3, lines 29-52 and column 4, lines 43-54) as well as allows the user to control the monitored device (column 3, lines 38-43 and column 6, lines 32-38). Conkright also discloses that the host computer contains a server database that is connected to the communication networks and accessible by the customer interface (column 3, lines 44-52 and Figure 1).

As noted above, the invention of Conkright teaches many of the features of the claimed invention and although it is considered inherent that in order for the customer subscriber to communicate with the host computer and server database there must be some corresponding protocol at the host computer and therefore the access to this protocol is implemented using an application service provider, Conkright does not specifically teach an application service provider provided with a program to effect the monitoring and the at least one network device provided with a

device program for communicating with the application service provider, the device program being substantially not uniquely adapted for the monitoring.

Aubry teaches an application service provider method and apparatus comprising a network interface device in the form of a computer system (0039) provided with a device program, which is not uniquely adapted for monitoring (i.e. a generic browser) (0005 and 0014), for communicating, over the Internet, with an application service provider with a program to effect any desired function (0014-0015) such as monitoring (0050 and 0097).

It would have been obvious to one having ordinary skill in the art to modify the invention of Conkright to include an application service provider provided with a program to effect the monitoring and the at least one network device provided with a device program for communicating with the application service provider, the device program being substantially not uniquely adapted for the monitoring, as taught by Aubry, because Conkright teaches a controlling software installed on a user's computer and Aubry suggests that the combination would have provided an improvement over requiring installation of software on a user's computer thereby allowing the user to have more control over the implementation of the desired software (0036-0037) and saved the user time and money by outsourcing technology (0047).

6. Claims 2 and 13, as may best be understood, are rejected under 35 U.S.C.

103(a) as being unpatentable over Conkright et al. in view Aubry and further in view of U.S. Patent No. 5,406,495 to Hill.

As noted above, the invention of Conkright and Aubry teaches all of the features of the claimed invention except for including monitoring equipment for measuring the voltage of the utility device.

Hill teaches a substation load distribution monitoring system comprising remote data units for sensing operating conditions of the power equipment (column 3, lines 20-29) including periodic voltage and current data (column 1, lines 48-55). Hill also teaches that the remote data units communicate with a host computer over a communication network to transfer measured data (column 3, lines 4-17).

It would have been obvious to one having ordinary skill in the art to modify the invention of Conkright and Aubry to include monitoring equipment for measuring the voltage of the utility device, as taught by Hill, because the invention of Conkright and Aubry teaches a system for use in a plurality systems including a system employing condition monitoring over an AC power line (Conkright, column 7, lines 9-11) and Hill suggests that the combination would have provided an improved-accuracy and simplified method of remote monitoring in a power system (column 1, lines 7-15), and therefore provided higher protection, by monitoring the voltage and current rather than just the current (column 6, lines 48-66).

7. Claims 7-9 and 18-20, as may best be understood, are rejected under 35 U.S.C.

103(a) as being unpatentable over Conkright et al. in view of Aubry and further in view of U.S. Patent No. 6,006,171 to Vines et al.

As noted above, the invention of Conkright and Aubry teaches all of the features of the claimed invention except for including automatic reporting, maintenance scheduling, and administrative tracking programs in the customer interface device.

Vines teaches a dynamic maintenance management system comprising a monitoring and analysis process for sending and receiving process control data to and from sensors and devices over a communication bus (column 3, lines 33-37). Vines teaches sending this information to a DMM configurator that processes the information (column 3, lines 53-65) to automatically provide reports describing device operation, preventive maintenance schedules, and administrative tracking (i.e. creating work orders including worker assignment) (column 5, lines 17-29 and 50-61 and Figures 3-9).

It would have been obvious to one having ordinary skill in the art to modify the invention of Conkright and Aubry to include automatic reporting, maintenance scheduling, and administrative tracking programs in the customer interface device, as taught by Vines, because the invention of Conkright and Aubry does include presenting information to a worker for fixing a fault that has occurred (Conkright, column 9, lines 15-34), and, as suggested by Vines, the combination would have provided more detailed information to allow an operator to make better informed decisions and devise proactive planning, increased performance and predictability of

equipment and operations, reduced maintenance costs, improved reliability, and

avoided costly failures (column 2, lines 12-31 and column 5, lines 30-34).

8. Claims 6 and 17, as may best be understood, are rejected under 35 U.S.C.

103(a) as being unpatentable over Conkright et al. in view of Aubry and further in

view of U.S. Patent No. 5,712,896 to Lee et al.

As noted above, the invention of Conkright and Aubry teaches all of the features

of the claimed invention except for including an expertise database.

Lee teaches a method for diagnosing a fault comprising software that is executed

by a hardware function to maintain/repair operation the hardware (column 3, lines 1-

4) wherein the state of a fault occurring is detected by either a hardware or software

fault detection function (column 3, lines 5-12). Lee also teaches that a fault

message is outputted from a switching system to a user via a fault diagnosis expert

system and a user matching function (column 3, lines 21-23) that communicates, via

an inference engine and a multimedia or graphic interface, questions to the user

relating to the diagnosis using a corresponding knowledge base (i.e. database)

(column 3, lines 36-38 and 41-49). Lee then teaches that after obtaining the

answers to the questions, the diagnosis is completed and the expert system outputs

a determination result of the fault diagnosis (column 4, line 56 to column 5, line 3).

It would have been obvious to one having ordinary skill in the art to modify the

invention of Conkright and Aubry to include an expertise database, as taught by Lee,

because, as suggested by Lee, the combination would have provided a method for

determining the type of fault that has occurred without the need of an expert in the field by providing interactive questions that guide the user through the process, and therefore allowed the diagnosis to be conducted immediately by an unskilled worker (column 1, lines 54-58).

9. Claims 11 and 22, as may best be understood, are rejected under 35 U.S.C. 103(a) as being unpatentable over Conkright et al. in view of Aubry, Hill, Vines, Lee, and International Publication Number WO 00/04427 to Parsons.

As noted above, Conkright teaches many of the features of the claimed invention including specifying that the host computer connect to the customer interface through the Internet, but does not teach that the interface be provided with a device program for communicating with an application service provider provided with a program to effect the monitoring, including monitoring equipment for measuring the voltage of the utility device, including automatic reporting, maintenance scheduling, and administrative tracking programs, including an expertise database, or specifying that the connection between the monitoring equipment and the host computer be the Internet.

Aubry teaches an application service provider method and apparatus comprising a network interface device in the form of a computer system (0039) provided with a device program, which is not uniquely adapted for monitoring (i.e. a generic browser) (0005 and 0014), for communicating, over the Internet, with an application service

provider with a program to effect any desired function (0014-0015) such as

monitoring (0050 and 0097).

Hill teaches a substation load distribution monitoring system comprising remote

data units for sensing operating conditions of the power equipment (column 3, lines

20-29) including periodic voltage and current data (column 1, lines 48-55). Hill also

teaches that the remote data units communicate with a host computer over a

communication network to transfer measured data (column 3, lines 4-17).

Vines teaches a dynamic maintenance management system comprising a

monitoring and analysis process for sending and receiving process control data to

and from sensors and devices over a communication bus (column 3, lines 33-37).

Vines teaches sending this information to a DMM configurator that processes the

information (column 3, lines 53-65) to automatically provide reports describing

device operation, preventive maintenance schedules, and administrative tracking

(i.e. creating work orders including worker assignment) (column 5, lines 17-29 and

50-61 and Figures 3-9).

Lee teaches a method for diagnosing a fault comprising software that is executed

by a hardware function to maintain/repair operation the hardware (column 3, lines 1-

4) wherein the state of a fault occurring is detected by either a hardware or software

fault detection function (column 3, lines 5-12). Lee also teaches that a fault

message is outputted from a switching system to a user via a fault diagnosis expert

system and a user matching function (column 3, lines 21-23) that communicates, via

an inference engine and a multimedia or graphic interface, questions to the user

relating to the diagnosis using a corresponding knowledge base (i.e. database) (column 3, lines 36-38 and 41-49). Lee then teaches that after obtaining the answers to the questions, the diagnosis is completed and the expert system outputs a determination result of the fault diagnosis (column 4, line 56 to column 5, line 3).

Parsons teaches an internet utility interconnect means, and corresponding method, comprising operating a remote control and monitoring system that replicates data between a host computer located at a central server site and a set of automation nodes located at a remote site wherein the means to link the data collected for subsequent access is through the Internet (page 6, lines 15-32).

It would have been obvious to one having ordinary skill in the art to modify the invention of Conkright to include an application service provider provided with a program to effect the monitoring and the at least one network device provided with a device program for communicating with the application service provider, the device program being substantially not uniquely adapted for the monitoring, as taught by Aubry, because Conkright teaches a controlling software installed on a user's computer and Aubry suggests that the combination would have provided an improvement over requiring installation of software on a user's computer by allowing the user to have more control over the implementation of the desired software (0036-0037) and saved the user time and money by outsourcing technology (0047).

It would have been obvious to one having ordinary skill in the art to modify the invention of Conkright to include monitoring equipment for measuring the voltage of the utility device, as taught by Hill, because Conkright teaches a system for use in a

plurality systems including a system employing condition monitoring over an AC

power line (column 7, lines 9-11) and Hill suggests that the combination would have

provided an improved-accuracy and simplified method of remote monitoring in a

power system (column 1, lines 7-15), and therefore provided higher protection, by

monitoring the voltage and current rather than just the current (column 6, lines 48-

66).

It would have been obvious to one having ordinary skill in the art to modify the

invention of Conkright to include automatic reporting, maintenance scheduling, and

administrative tracking programs in the customer interface device, as taught by

Vines, because Conkright does include presenting information to a worker for fixing

a fault that has occurred (column 9, lines 15-34), and, as suggested by Vines, the

combination would have provided more detailed information to allow an operator to

make better informed decisions and devise proactive planning, increased

performance and predictability of equipment and operations, reduced maintenance

costs, improved reliability, and avoided costly failures (column 2, lines 12-31 and

column 5, lines 30-34).

It would have been obvious to one having ordinary skill in the art to modify the

invention of Conkright to include an expertise database, as taught by Lee, because,

as suggested by Lee, the combination would have provided a method for

determining the type of fault that has occurred without the need of an expert in the

field by providing interactive questions that guide the user through the process, and

therefore allowed the diagnosis to be conducted immediately by an unskilled worker (column 1, lines 54-58).

Further, it would have been obvious to one having ordinary skill in the art to modify the invention of Conkright to include specifying that the connection between the monitoring equipment and the host computer be the Internet, as taught by Parson, because, as suggested by Parsons, the combination would have allowed the web server to be changed by authorized users and therefore enabled residents and other subscribers to conveniently turn on the connected devices whenever desired (page 4, lines 13-15 and page 8, lines 4-15).

10. Claims 23 and 24, as may best be understood, are rejected under 35 U.S.C. 103(a) as being unpatentable over Conkright et al. in view of Aubry et al. and further in view of U.S. Patent No. 5,790,424 to Sugihara et al.

As noted above, the invention of Conkright and Aubry teaches many of the features of the claimed invention including diagnosing a utility system but does not specifically teach including historical information, comprising actual conditions, surrounding a fault condition for use in diagnosing a problem.

· Sugihara teaches a plant monitoring apparatus and monitoring method including monitoring equipment providing historical information (column 4, line 62 to column 5, line 13) surrounding a fault condition (column 2, lines 6-13), including actual conditions (column 1, line 61 to column 2, line 5), and using the historical information to diagnosis a problem (abstract and column 7, lines 40-62).

It would have been obvious to one having ordinary skill in the art to modify the invention of Conkright and Aubry to include historical information, comprising actual conditions, surrounding a fault condition for use in diagnosing a problem, as taught by Sugihara, because, as suggested by Sugihara, the combination would have allowed the user to recognize what components have a problem that needs attention based upon past data (abstract) to reduce the users burden as well as reduce the likelihood of erroneous operation and misreading (column 7, lines 12-30).

11. Claim 25, as may best be understood, is rejected under 35 U.S.C. 103(a) as being unpatentable over Conkright et al. in view of Aubry et al. and further in view of U.S. Patent Application Publication No. 2003/0041098 to Lortz.

As noted above, the invention of Conkright and Aubry teaches many of the features of the claimed invention including a server database that is connected to the communication networks and accessible by the customer interface, but does not specify that the operating equipment query the database to locate spare parts for repair of the faulty equipment.

Lortz teaches network-based detection and display of product replacement information including means for querying an equipment database to locate spare parts for the repair of faulty equipment (0008 and 0039).

It would have been obvious to one having ordinary skill in the art to modify the invention of Conkright and Aubry to include specifying that the operating equipment query the database to locate spare parts for repair of the faulty equipment, as taught

by Lortz, because, as suggested by Lortz, the combination would have eliminated the burden on the user for correcting the operation of a system by providing a straightforward and efficient system for automatically identifying a part that has failed and for determining related part failures or related replacement concerns for a failed part (0007).

Response to Arguments

12. Applicant's arguments with respect to claims 1-22 have been considered but are moot in view of the new ground(s) of rejection.

The Examiner does note, however, that Applicant argues that "Conkright teaches that the customers 24 install the software on a personal computer (PC) at their home or office. It is respectfully submitted that such teaching of Conkright teaches away from the features of amended claim 1."

In response, the Examiner asserts that while the invention of Conkright alone does not specifically meet each of the limitations of amended claim 1, the teaching of the installed software does not teach away from the use of an application service provider. Conkright simply teaches a common method for performing monitoring of a system over a network connection and, as presented in the instant Office Action, the invention of Aubry suggests an improved method for including an application service provider to allow the user to have more control over the implementation of the desired software save the user time and money through outsourcing.

Conclusion

13. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

U.S. Patent No. 4,799,254 to Dayton et al. teaches a portable communication terminal for remote database query that allows the query of a home database concerning prices, availability of stock, or spare parts over a standard telephone line, which is available almost anywhere.

14. If a copy of a provisional application listed on the bottom portion of the accompanying Notice of References Cited (PTO-892) form is not included with this Office action and the PTO-892 has been annotated to indicate that the copy was not readily available, it is because the copy could not be readily obtained when the Office action was mailed. Should applicant desire a copy of such a provisional application, applicant should promptly request the copy from the Office of Public Records (OPR) in accordance with 37 CFR 1.14(a)(1)(iv), paying the required fee under 37 CFR 1.19(b)(1). If a copy is ordered from OPR, the shortened statutory period for reply to this Office action will not be reset under MPEP § 710.06 unless applicant can demonstrate a substantial delay by the Office in fulfilling the order for the copy of the provisional application. Where the applicant has been notified on the PTO-892 that a copy of the provisional application is not readily available, the provision of MPEP § 707.05(a) that a copy of the cited reference will be automatically furnished without charge does not apply.
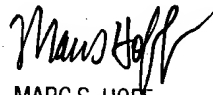
15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeffrey R. West whose telephone number is (703)308-1309. The examiner can normally be reached on Monday through Friday, 8:00-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marc S. Hoff can be reached on (703)308-1677. The fax phone numbers for the organization where this application or proceeding is assigned are (703)308-7382 for regular communications and (703)308-7382 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)308-0956.

jrw
May 14, 2004

MARC S. HOFF
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600